3. Ten persons who had less well defined reactions—such as headache, fatigue, dyspnea, maculopapular rash, nasal congestion or diarrhea —to certain foods.

When successive tests were run on the same patients, the results were not consistent. False positive reactions occurred with equal frequency in all patient groups, the food that provoked symptoms in atopic patients tested positive in only four of 15 with the cytotoxic test. Skin tests were carried out on 13 of the 15 atopic group two patients. In 11 patients, test reactions were positive for the foods provoking symptoms. The cytotoxic food test was not found to be a reliable method for diagnosing atopic reactions to foods. Also, claims that the test correlates with other untoward food reactions could not be corraborated.

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REFERENCES

Ulett GA, Perry SG: Cytotoxic testing and leukocyte increase as an index to food sensitivity. Ann Allergy 33:23-32, Jul 1974

Baker SP: Allergic respiratory tract disease. Med J Aust 1: 126-127, Jan 1973

Lieberman P, Crawford L, Bjelland J: Controlled study of the cytotoxic food test. JAMA 231:728-730, Feb 1975

Bryan WTK, Bryan MP: The applications of in vitro cytotoxic reactions to clinical diagnosis of food allergy. Laryngoscope 70: 810, Jun 1960

Misuse of Mist Therapy in Status Asthmaticus

MIST TENTS have often been used in the past for status asthmaticus with little rationale and even to the patients' detriment. Only a small portion of the mist inhaled reaches the lower respiratory tract, most of it being filtered out in the mouth and nasopharynx. Studies using aerosolized technetium from jet and ultrasonic nebulizers show that 70 to 96 percent of the particles are deposited in the upper airways, particularly during nasal inhalation. The usual amount of water that would be deposited in 24 hours in the lower airways of an adult is between 6 and 40 ml. The inspired air is normally fully saturated by the time it reaches the carina so that the benefit of a few milliliters of water in droplet form is remote. It serves basically to hydrate the anterior nares and upper airway. It is doubtful that inhaled mist provides a significant means of liquifying intraluminal mucous plugs.

On the other hand, mist therapy may be detrimental. The density of the fog in the mist tent is such that one cannot adequately visualize a patient in respiratory distress who needs close observation. It may also be very frightening to a young asthmatic patient.

In addition, aerosolized mist has been shown to increase airway resistance in asthmatic patients, particularly with the use of ultrasonically nebulized distilled water.

For this reason we do not recommend mist therapy in a patient with status asthmaticus. The only use for a tent in treating a patient with status asthmaticus is to supply humidified oxygen when the patient cannot tolerate a face mask or nasal delivery system.

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REFERENCES

Barker R, Levinson H: Effects of ultrasonically nebulized distilled water on airway dynamics in children with cystic fibrosis and asthma. J Pediatr 80:396-400, Mar 1972

Parks CR: Mist therapy: rationale and practice. J Pediatr 76: 305-313, Feb 1970

Wolfsdorf J, Swift DL, Avery ME: Mist therapy reconsidered—An evaluation of the respiratory deposition of labelled water aerosols produced by jet and ultrasonic nebulizers. Pediatrics 43: 799-808, May 1969

Hazards of Barbiturates in the Treatment of Asthma, Bronchitis, and Obstructive Pulmonary Disease

BARBITURATES ARE POTENT inducers of microsomal enzymes. In the liver, these enzymes hydrolyze both corticosteroids and theophylline, resulting in reduced biological activity for both substances. Furthermore, theophylline bioavailability has been shown to be adversely affected when theophylline is combined with phenobarbital in oral tablet form as compared with plain theophylline tablets. Thus, in a patient receiving oral tablets that contain both phenobarbital and theophylline, lower blood levels may be attained more slowly and the duration of these levels will be shorter. The same patient may well experience a lesser corticosteroid effect than the patient who receives theophylline without phenobarbital. These risks must be added to the established hazard of respiratory center depression, which occurs as a result of barbiturate administration.

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REFERENCES

Editorial: Br Med J 3:490, Aug 1972

Jacobs MH, Senior RM: Theophylline toxicity due to impaired theophylline degradation. Am Rev Resp Dis 110:342-345, Sep 1974

Bettis JW, Lach JL, Hood J: Effect of complexation with phenobarbital on the biological availability of theophylline from three tablet formulations. Am J Hosp Pharm 30:240-243, Mar 1973